IN THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the Application:

LISTING OF CLAIMS:

1. (Cancelled)

2. (Currently amended) ~~The method of claim 1~~ In a data communications device having a network address translation data structure, a method for managing network traffic using network address translation, the method comprising the steps of:

in the network address translation data structure, creating a first entry to coordinate a first data flow from a server to a client, and concurrently creating a second entry to coordinate a second data flow from the client to the server;

conveying a data element of the first data flow from the server to the client based on the first entry; and

conveying a data element of the second data flow from the client to the server based on the second entry;

wherein the network traffic includes Real-Time Streaming Protocol packets, wherein the data element of the first data flow is a Real-Time Transport Protocol packet, and wherein the data element of the second data flow is a Real-Time Transport Protocol Control Protocol packet.

3. (Currently amended) The method of claim ~~1~~ 2 wherein the step of creating the first entry and concurrently creating the second entry includes the step of:

storing, in the first entry, a port number X; and

storing, in the second entry, a port number X+1, wherein X is a positive integer.

4.   (Currently amended) The method of claim ~~1~~ 2, further comprising the step of:

configuring the data communications device to operate as a gateway between a first network in which multiple servers reside, and a second network in which multiple clients reside, wherein the multiple servers includes the server from which the data element of the first data flow is conveyed, and wherein the multiple clients include the client from which the data element of the second data flow is conveyed.

5.   (Cancelled)

6.   (Currently amended) ~~The data communications device of claim 5~~ A data communications device, comprising:

a network interface which is capable of connecting to a client and a server;

memory to store a network address translation data structure; and

a controller coupled to the network interface and the memory, the controller being configured to:

in the network address translation data structure stored in the memory, create a first entry to coordinate a first data flow from the server to the client, and concurrently create a second entry to coordinate a second data flow from the client to the server,

based on the first entry, convey a data element of the first data flow from the server to the client through the network interface, and

<u>based on the second entry, convey a data element of</u>
<u>the second data flow from the client to the server through the</u>
<u>network interface;</u>

wherein the network traffic includes Real-Time Streaming Protocol packets, wherein the data element of the first data flow is a Real-Time Transport Protocol packet, and wherein the data element of the second data flow is a Real-Time Transport Protocol Control Protocol packet.

7.   (Currently amended) The data communications device of claim ~~5~~6 wherein the first entry includes a port number X, wherein the second entry includes a port number X+1, and wherein X is a positive integer.

8.   (Currently amended) The data communications device of claim ~~5~~6 wherein the controller is configured to operate as a gateway between a first network in which multiple servers reside, and a second network in which multiple clients reside, wherein the multiple servers includes the server from which the data element of the first data flow is conveyed, and wherein the multiple clients include the client from which the data element of the second data flow is conveyed.

9.   (Currently amended) A data communications system, comprising:

a server;

a communications medium; and

a data communications device coupled to the server through the communications medium, the data communications device including:

a network interface which is capable of connecting to (i) the server through the communications medium, and (ii) a client,

memory to store a network address translation data structure, and

a controller coupled to the network interface and the memory, the controller being configured to:

in the network address translation data structure, create a first entry to coordinate a first data flow from the server to the client, and concurrently create a second entry to coordinate a second data flow from the client to the server,

based on the first entry, convey a data element of the first data flow from the server to the client through the network interface, and

based on the second entry, convey a data element of the second data flow from the client to the server through the network interface<u>;</u>

<u>wherein the network traffic includes Real-Time Streaming Protocol packets, wherein the data element of the first data flow is a Real-Time Transport Protocol packet, and wherein the data element of the second data flow is a Real-Time Transport Protocol Control Protocol packet.</u>.

10.   (Currently amended) A computer program product that includes a computer readable medium having instructions stored thereon for managing network traffic in a computerized device using network address translation, such that the instructions, when carried out by the computerized device, cause the computerized device to perform the steps of:

in a network address translation data structure, creating a first entry to coordinate a first data flow from a server to a client, and concurrently

creating a second entry to coordinate a second data flow from the client to the server;

conveying a data element of the first data flow from the server to the client based on the first entry; and ·

conveying a data element of the second data flow from the client to the server based on the second entry;

<u>wherein the network traffic includes Real-Time Streaming Protocol packets, wherein the data element of the first data flow is a Real-Time Transport Protocol packet, and wherein the data element of the second data flow is a Real-Time Transport Protocol Control Protocol packet.</u>.

11.   (Currently amended) A data communications device, comprising:

a network interface which is capable of connecting to a client and a server;

memory to store a network address translation data structure; and

a controller coupled to the network interface and the memory, the controller including:

means for creating, in the network address translation data structure, a first entry to coordinate a first data flow from the server to the client, and concurrently creating, in the network address translation data structure, a second entry to coordinate a second data flow from the client to the server,

means for conveying a data element of the first data flow from the server to the client through the network interface based on the first entry, and

means for conveying a data element of the second data flow from the client to the server through the network interface based on the second entry;

wherein the network traffic includes Real-Time Streaming Protocol packets, wherein the data element of the first data flow is a Real-Time Transport Protocol packet, and wherein the data element of the second data flow is a Real-Time Transport Protocol Control Protocol packet..

12.   (Cancelled)

13.   (Currently amended) ~~The method of claim 12~~ In a data communications device having a network address translation data structure, a method for managing network traffic using network address translation, the method comprising the steps of:

conveying a data element of a first data flow from a server to a client and concurrently creating, in the network address translation data structure, a first entry to coordinate the first data flow from the server to the client;

receiving a command from the server and creating, in the network address translation data structure, a second entry to coordinate a second data flow from the client to the server in response to the command; and

conveying a data element of the second data flow from the client to the server based on the second entry;

wherein the network traffic includes Real-Time Streaming Protocol packets, wherein the data element of the first data flow is a Real-Time Transport Protocol packet, and wherein the data element of the second data flow is a Real-Time Transport Protocol Control Protocol packet.

14.   (Currently amended) The method of claim ~~12~~ 13 wherein the step of conveying the data element of the first data flow and creating the first entry includes the step of storing, in the first entry, a port number X; and wherein the step of receiving the command and creating the second entry includes the step of storing, in the second entry, a port number X+1; and wherein X is a positive integer.

15.   (Currently amended) The method of claim ~~12~~ 13, further comprising the
step of:

    configuring the data communications device to operate as a
gateway between a first network in which multiple servers reside, and a
second network in which multiple clients reside, wherein the multiple
servers includes the server from which the data element of the first data
flow is conveyed, and wherein the multiple clients include the client from
which the data element of the second data flow is conveyed.

16.   (Cancelled)

17.   (Currently amended) ~~The data communications device of claim 16~~<u>A data
communications device, comprising</u>

    <u>a network interface which is capable of connecting to a client and a
server;</u>

    <u>memory to store a network address translation data structure; and</u>

    <u>a controller coupled to the network interface and the memory, the
controller being configured to:</u>

        <u>convey a data element of a first data flow from a server to a
client and concurrently create, in the network address translation
data structure, a first entry to coordinate the first data flow from the
server to the client;</u>

        <u>receive a command from the server and create, in the
network address translation data structure, a second entry to
coordinate a second data flow from the client to the server in
response to the command; and</u>

        <u>convey a data element of the second data flow from the
client to the server based on the second entry.</u>

wherein the network traffic includes Real-Time Streaming Protocol packets, wherein the data element of the first data flow is a Real-Time Transport Protocol packet, and wherein the data element of the second data flow is a Real-Time Transport Protocol Control Protocol packet.

18.   (Currently amended) The data communications device of claim ~~16~~ 17 wherein the first entry includes a port number X, wherein the second entry includes a port number X+1, and wherein X is a positive integer.

19.   (Currently amended) The data communications device of claim ~~16~~ 17 wherein the controller is configured to operate as a gateway between a first network in which multiple servers reside, and a second network in which multiple clients reside, wherein the multiple servers includes the server from which the data element of the first data flow is conveyed, and wherein the multiple clients include the client from which the data element of the second data flow is conveyed.

20.   (Currently amended) A data communications system, comprising:
        a server;
        a communications medium; and
        a data communications device coupled to the server through the communications medium, the data communications device including:
                a network interface which is capable of connecting to (i) the server through the communications medium, and (ii) a client,
                memory to store a network address translation data structure, and
                a controller coupled to the network interface and the memory, the controller being configured to:

convey a data element of a first data flow from a server to a client through the network interface and concurrently create, in the network address translation data structure, a first entry to coordinate the first data flow from the server to the client;

receive a command from the server through the network interface and create, in the network address translation data structure, a second entry to coordinate a second data flow from the client to the server in response to the command; and

convey a data element of the second data flow from the client to the server through the network interface based on the second entry; wherein the network traffic includes Real-Time Streaming Protocol packets, wherein the data element of the first data flow is a Real-Time Transport Protocol packet, and wherein the data element of the second data flow is a Real-Time Transport Protocol Control Protocol packet..

21. (Original) A computer program product that includes a computer readable medium having instructions stored thereon for managing network traffic in a computerized device using network address translation, such that the instructions, when carried out by the computerized device, cause the computerized device to perform the steps of:

conveying a data element of a first data flow from a server to a client and concurrently creating, in the network address translation data

structure, a first entry to coordinate the first data flow from the server to the client;

receiving a command from the server and creating, in the network address translation data structure, a second entry to coordinate a second data flow from the client to the server in response to the command; and

conveying a data element of the second data flow from the client to the server based on the second entry;

<u>wherein the network traffic includes Real-Time Streaming Protocol packets, wherein the data element of the first data flow is a Real-Time Transport Protocol packet, and wherein the data element of the second data flow is a Real-Time Transport Protocol Control Protocol packet.</u>.

22.   (Original) A data communications device, comprising

a network interface which is capable of connecting to a client and a server;

memory to store a network address translation data structure; and

a controller coupled to the network interface and the memory, the controller including:

means for conveying a data element of a first data flow from a server to a client and concurrently creating, in the network address translation data structure, a first entry to coordinate the first data flow from the server to the client;

means for receiving a command from the server and creating, in the network address translation data structure, a second entry to coordinate a second data flow from the client to the server in response to the command; and

means for conveying a data element of the second data flow from the client to the server based on the second entry;

<u>wherein the network traffic includes Real-Time Streaming Protocol</u>
<u>packets, wherein the data element of the first data flow is a Real-Time</u>
<u>Transport Protocol packet, and wherein the data element of the second</u>
<u>data flow is a Real-Time Transport Protocol Control Protocol packet.</u>.

23.   (Original) In a server, a method for providing content, the method
comprising the steps of:

provide a Real-Time Transport Protocol data flow to a client
through a data communications device;

sending a packet to the client through the data communications
device to configure a network address translation data structure within the
data communications device; and

receiving a Real-Time Transport Protocol Control Protocol packet
from the client through the data communications device based on the
network address translation data structure within the data communications
device.

24.   (Original) The method of claim 23 wherein the packet includes a time-to-
live field, and wherein the step of sending the packet includes the step of:

outputting the packet so that initial contents of the time-to-live field
result in expiration of the packet prior to reaching the client.

25.   (Original) A server, comprising:

a network interface; and

a controller coupled to the network interface, the controller being
configured to:

provide a Real-Time Transport Protocol data flow to a client
through the network interface and a data communications device;

send a packet to the client through the network interface and the data communications device to configure a network address translation data structure within the data communications device; and

receive a Real-Time Transport Protocol Control Protocol packet from the client through the data communications device and the network interface based on the network address translation data structure within the data communications device.

26.   (Original) The server of claim 25 wherein the packet includes a time-to-live field, and wherein the controller is configured to:

output the packet through the network interface so that initial contents of the time-to-live field result in expiration of the packet prior to reaching the client.

27.   (New) A method according to claim 2, wherein:

the Real-Time Transport Protocol (RTP) packet includes a first address and a first port number of the server and an address and a first port number of the client, the first address of the server being locally defined on a first network including a plurality of servers from which the RTP packet is sent to the client;

the Real-Time Transport Control Protocol (RTCP) packet includes the address and a second port number of the client and the second address and a second port number of the server, the second address of the server uniquely identifying the server on a second network over which the RTCP packet travels to reach the server, the second port numbers of the client and server being distinct from the first port numbers of the client and server respectively but having predetermined relationships therewith as established by the RTSP session;

the first and second entries of the network address translation (NAT) data structure are created in response to receipt of the RTP packet, and each entry includes respective first network data and second network data:

the first network data of the first entry includes the first address and the first port number of the server and the address and first port number of the client, and the second network data of the first entry includes the second address and the first port number of the server and the address and the first port number of the client;

the first network data of the second entry includes the address and the second port number of the client and the first address and the second port number of the server, and the second network data of the second entry includes the address and the second port number of the client and the second address and the second port number of the server;

conveying the data element of the first data flow comprises (1) utilizing the first entry of the NAT data structure to translate the first address of the server in the RTP packet to the second address of the server, and (2) forwarding the translated RTP packet to the client; and

conveying the data element of the second data flow comprises (1) utilizing the second entry of the NAT data structure to translate the second address of the server in the RTCP packet to the first address of the server, and (2) forwarding the translated RTCP packet to the server.

28.   (New) A communications device according to claim 6, wherein:

the Real-Time Transport Protocol (RTP) packet includes a first address and a first port number of the server and an address and a first port number of the client, the first address of the server being locally defined on a first network including a plurality of servers from which the RTP packet is sent to the client;

the Real-Time Transport Control Protocol (RTCP) packet includes the address and a second port number of the client and the second address and a second port number of the server, the second address of the server uniquely identifying the server on a second network over which the RTCP packet travels to reach the server, the second port numbers of the client and server being

distinct from the first port numbers of the client and server respectively but having predetermined relationships therewith as established by the RTSP session;

the first and second entries of the network address translation (NAT) data structure are created by the controller in response to receipt of the RTP packet, and each entry includes respective first network data and second network data:

the first network data of the first entry includes the first address and the first port number of the server and the address and first port number of the client, and the second network data of the first entry includes the second address and the first port number of the server and the address and the first port number of the client;

the first network data of the second entry includes the address and the second port number of the client and the first address and the second port number of the server, and the second network data of the second entry includes the address and the second port number of the client and the second address and the second port number of the server;

the controller is operative when conveying the data element of the first data flow to (1) utilize the first entry of the NAT data structure to translate the first address of the server in the RTP packet to the second address of the server, and (2) forward the translated RTP packet to the client; and

the controller is operative when conveying the data element of the second data flow to (1) utilize the second entry of the NAT data structure to translate the second address of the server in the RTCP packet to the first address of the server, and (2) forward the translated RTCP packet to the server.

29. A method according to claim 13, wherein:

the Real-Time Transport Protocol (RTP) packet includes a first address and a first port number of the server and an address and a first port number of the client, the first address of the server being locally defined on a first network including a plurality of servers from which the RTP packet is sent to the client;

the Real-Time Transport Control Protocol (RTCP) packet includes the address and a second port number of the client and the second address and a second port number of the server, the second address of the server uniquely identifying the server on a second network over which the RTCP packet travels to reach the server, the second port numbers of the client and server being distinct from the first port numbers of the client and server respectively but having predetermined relationships therewith as established by the RTSP session;

the first entry of the network address translation (NAT) data structure is created in response to receipt of the RTP packet;

the second entry of the NAT data structure is created in response to a command from the server prior to the generation of the RTCP packet;

each entry of the NAT data structure includes respective first network data and second network data:

the first network data of the first entry includes the first address and the first port number of the server and the address and first port number of the client, and the second network data of the first entry includes the second address and the first port number of the server and the address and the first port number of the client;

the first network data of the second entry includes the address and the second port number of the client and the first address and the second port number of the server, and the second network data of the second entry includes the address and the second port number of the client and the second address and the second port number of the server;

conveying the data element of the first data flow comprises (1) utilizing the first entry of the NAT data structure to translate the first address of the server in the RTP packet to the second address of the server, and (2) forwarding the translated RTP packet to the client; and

conveying the data element of the second data flow comprises (1) utilizing the second entry of the NAT data structure to translate the second address of the

server in the RTCP packet to the first address of the server, and (2) forwarding the translated RTCP packet to the server.

30.   (New) A communications device according to claim 17, wherein:

the Real-Time Transport Protocol (RTP) packet includes a first address and a first port number of the server and an address and a first port number of the client, the first address of the server being locally defined on a first network including a plurality of servers from which the RTP packet is sent to the client;

the Real-Time Transport Control Protocol (RTCP) packet includes the address and a second port number of the client and the second address and a second port number of the server, the second address of the server uniquely identifying the server on a second network over which the RTCP packet travels to reach the server, the second port numbers of the client and server being distinct from the first port numbers of the client and server respectively but having predetermined relationships therewith as established by the RTSP session;

the controller is operative to create the first entry of the network address translation (NAT) data structure in response to receipt of the RTP packet;

the controller is operative to create the second entry of the NAT data structure in response to receipt of a command from the server prior to the generation of the RTCP packet;

each entry of the NAT data structure includes respective first network data and second network data:

the first network data of the first entry includes the first address and the first port number of the server and the address and first port number of the client, and the second network data of the first entry includes the second address and the first port number of the server and the address and the first port number of the client;

the first network data of the second entry includes the address and the second port number of the client and the first address and the second port number of the server, and the second network data of the second entry includes

the address and the second port number of the client and the second address and the second port number of the server;

the controller is operative when conveying the data element of the first data flow to (1) utilize the first entry of the NAT data structure to translate the first address of the server in the RTP packet to the second address of the server, and (2) forward the translated RTP packet to the client; and

the controller is operative when conveying the data element of the second data flow to (1) utilize the second entry of the NAT data structure to translate the second address of the server in the RTCP packet to the first address of the server, and (2) forward the translated RTCP packet to the server.